

REQUEST FOR RECONSIDERATION

Applicants thank Examiner Bissett for the helpful and courteous discussion of December 30, 2004. During the discussion, Applicants' U.S. representative presented arguments that paint films must have improved surface finish characteristics in order to carry out their functions as coatings and provide acceptable "class A" surface characteristics.

New dependent Claims 43 and 46 have been added. The new dependent claims require that the plastic moldings of independent Claims 18 and 35 are paint films. New dependent Claims 44 and 47 have been added. New dependent Claims 44 and 47 require that the plastic moldings of independent Claims 18 and 35 have a Class A finish. New dependent Claims 45 and 48 have been added. New dependent Claims 45 and 48 limit the thickness of the back-molding material and polymer back-molding film of claims 18 and 35.

In the Office Action of October 4, 2004, the Office rejected the claims as obvious in view of patents to Grefenstein (CA 2,221,266) and Sakai (U.S. 5,679,456). It is the Office's assertion that it would be obvious for those of ordinary skill in the art to use the long fibers of Sakai in the process of Grefenstein to arrive at the presently claimed invention. Applicants traverse the Office's assertion on the grounds that those of ordinary skill in the art would not be persuaded to apply the methods and/or fibers of Sakai to prepare a film, such as a coating film, which must exhibit excellent surface finish.

The Office admitted that Grefenstein does not disclose a laminate film having a fiber reinforcement that is at least partly of length greater than 1 mm. The Office applies Sakai as a teaching of a reinforcing fiber having a length of from 1.0 to 200 mm. Applicants note that Sakai is drawn to "Fiber Reinforced Thermoplastic Resin Structure, Process for Production of Same, and Extruder for Production of Same" (see title). Sakai discloses "resin structures" made from thermoplastic resins containing reinforcing fibers (see abstract). The prior art resin structure is described as follows:

[The present invention] relates to fiber reinforced thermoplastic resin pellets suitable for making automobile cylinder head covers, bumper beams, seat frames, instrument panels, wheel caps, battery trays, etc., office automation equipment and home appliance chassis, housings, etc., and further tool housings and fiber reinforced thermoplastic sheets suited for extrudates, blow molded products, tubes, pipes, and sheets, and further hot molding use sheets.

The "structure" of the present invention means blow-molded articles, rods (including tubes, pipes, or other hollow articles) or sheet-shaped structures, hot molding use sheets or other fiber reinforced thermoplastic resin structures, fiber reinforced thermoplastic resin pellets capable of using for injection molding, extrusion and the other types of molding of automobile cylinder head covers, etc., and injected molded articles made by application of the process of production of the present invention (see paragraph bridging columns 6 and 7).

As the fiber reinforced thermoplastic resin sheet of the present invention, mention may be made of fiber reinforced plastic sheets, etc., used in various applications and obtained by stamping, compression rolling, vacuum molding, and other molding methods (col. 7, lines 57-61).

As indicated by the prior art disclosure above, Sakai is not drawn to films that require an excellent surface finish. In fact, resin structures such as pellets, cylinder head covers, housings, beams, frames, etc. are parts of automobiles that are normally hidden from view and which would not otherwise be painted to obtain a class A surface finish. While Sakai describes resin sheets, the resin sheets are described as starting stock for preparing parts by stamping, compression molding, etc. It is not disclosed that the prior art resin sheet must have an excellent surface finish.

The plastic molding of present independent Claims 18 and 35 may be used as a paint film (see also new dependent Claims 43-44 and 46-47). A description of paint films is available in the reference filed by IDS titled "Is Dry Paint in Your Future?" a copy of this article published in *Plastics World*, July 1996, was submitted with an IDS upon filing of the original application. A copy is attached herewith for convenience.

As is shown by the Plastics World article, paint films are intended as replacements for traditional painted surfaces for automobiles. Such paint surfaces must exhibit class A finish in order to be acceptable for consumer markets. New dependent Claims 43-44 and 46-47 require that the plastic molding is a paint film and/or must have a class A finish.

Applicants submit that Sakai does not suggest that fibers having long fiber length are acceptable in plastic moldings present in the form of paint films that exhibit class A finish. Applicants further submit that those of ordinary skill in the art may not expect that plastic compositions containing fiber reinforcement having long fiber length may provide excellent surface finish.

Applicants submit herewith "The Effect of Reinforcing Fiber Length on Surface Properties of Thermoplastic Composites Made by Surface Finishing/Compression Molding," presented at the National Science Foundation Workshop on Composite Sheet Forming, September 5-7, 2001. This paper describes the use of fibers as reinforcement in "horizontal panels". A horizontal panel is an automobile part such as a trunk lid that has a large visible surface which must exhibit a good surface finish that is pleasing to consumers. As stated in the conclusions of the presentation "[t]he most straightforward solution for reinforcement is to use long fibers (glass or carbon) in the molding resin. While improving strength and stiffness, the part surface is degraded." As explicitly stated in the study, the use of long fibers degrades surface finish. Applicants submit that this disclosure indicates that those of ordinary skill in the art would not expect the fibers of Sakai to be acceptable in the plastic moldings of the present invention because those of ordinary skill in the art may expect degraded surface finish and not class A finish when fibers of long fiber length (e.g. greater than 1 mm) are present.

Applicants therefore submit that those of ordinary skill in the art would not have a reasonable expectation of success in combining Sakai and Grefenstein. Applicants submit

the Office has not provided a *prima facie* case of obviousness and respectfully request the withdrawal of the rejection.

New Claims 45 and 48 limit the thickness of the plastic molding by limiting the thickness of the back molding film and the back-molded fiber reinforced plastic. Applicants submit that new Claims 45 and 48 are further patentable in view of the prior art of record because Sakai discloses resin sheets of 5 mm thickness which is thicker than any laminates of the two films of the new Claims 45 and 48.

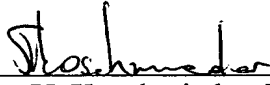
Respectfully submitted,

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